AHF ANALYSENTECHNIK

ECOPRE DIGESTION SYSTEM

For ultra-trace analysis of elements

AT A GLANCE

:: Semi-closed system for non-pressure digestion under reflux (corresponding DIN ISO 11466)
:: Acid digestions using HNO_3, HCl, HF, etc.
:: For elemental analysis of mineralogical, environmental and biological samples
:: Sample amount up to 3 g
:: Metal-free system by the use of PFA coated graphite heating block and vessels (‘BaekDu’) made of PFA

BENEFITS

:: Easy handling and cleaning
:: Less acid vapors polluting the lab
:: Reduced acid consumption
:: Collection of volatile elements like Hg, B, As
:: Reduced foaming compared to glass
:: Compact design allows parallel digestion of many samples

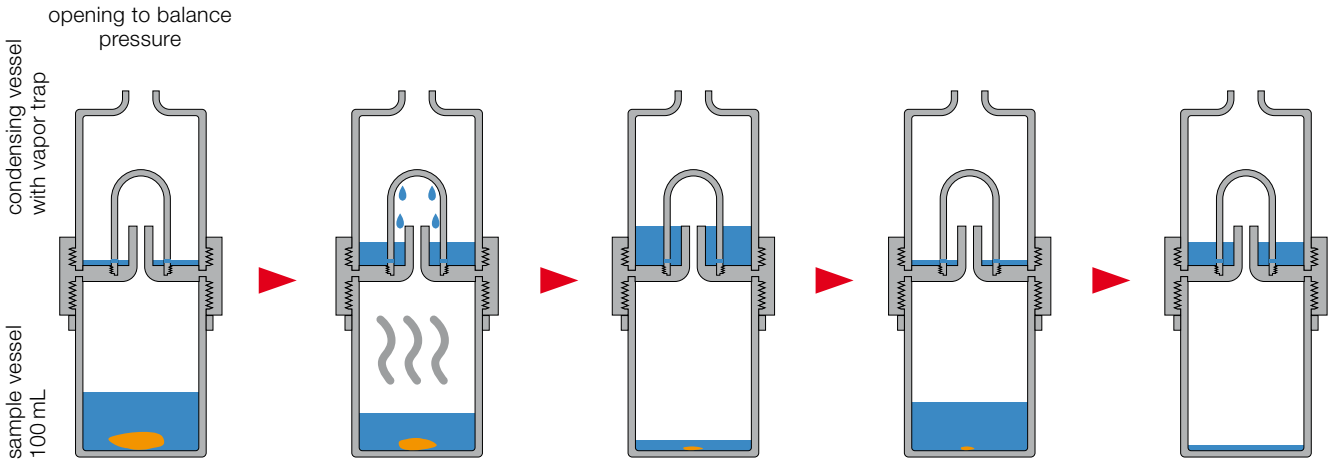
SEMI-CLOSED DIGESTION SYSTEM ‚BAEKDU'

:: Completely made of fluorinated polymers PFA
:: BaekDu vessels consists of:
digestion vessel (300 / 100 / 60 / 30 / 15 mL),
connection part with tube,
U-tube for condensation of acid,
cover with opening for pressure compensation
:: Heating by metal-free graphite plate with external temperature regulator
:: Heating plate and blocks available in various sizes
:: Controller options: up/down; programmable; 7" TFT touch screen

SCOPE OF APPLICATION

:: Aqua regia dissolution of soils, sediments, sludges etc.
:: Recovery experiment with reference material according to DIN ISO 11466 confirms reproducibility with preparation method
:: Acid digestions of food, agricultural and environmental samples
:: Alkaline digestions for heavy metal trace analysis, e.g. Chromium (VI)
:: Methods described for different sample types

Working Principle



Fill acid and sample in vessel and add 1%~5% HNO_3 in condensing tube.

Digestion vapors are trapped in air cooled condensing and collection tube.

When sample volume is concentrated the reaction pressure decreases.

By cooling down the acid of collection tube is automatically sucked back in digestion vessel.

Reheating completes the digestion and evaporates the acid.

Legal notice: BaekDu™ system patented by Odlab, Korea (www.odlab.co.kr).

AHF analysentechnik AG :: Kohlplattenweg 18 :: DE 72074 Tübingen :: Germany :: +49 7071 970 901-0 :: info@ahf.de :: www.ahf.de

AHF.09.2019.V07